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Navy/ Grumman, Bethpage, NY

Navy's Off-Site Groundwater Alternative Analysis - Five Alternatives were Reviewed by the Navy

Alternative 1. ($254M Total Cost*) - Continuation of the current OU-2 ROD, which includes on-site source containment, off-site hot-spot treatment, off-site plume monitoring, and wellhead treatment at impacted supply wells.

Alternative 2A. ($229M Total Cost) - This alternative would include the measures in Alternative 1, plus sustained (year-round) pumping of strategic supply wells (namely, BWD 6-2 and ANY-SNR).

- Navy prefers this alternative.
- Bethpage Water District (BWD) has issues with this alternative. Cost reimbursement issues regarding BWD's treating the contaminated groundwater. In a recent letter to NYSDEC, BWD stated that some of the wells potentially used for treatment would be closed in the near future. Interesting enough, BWD had expressed an interest in this alternative when the Navy's Optimization Team originally recommended it as an option several months ago.

Alternative 2B. ($458M Total Cost) - This alternative would include the measures in Alternative 1, plus a new plume capture system at the leading edge (targeted capture of impacted groundwater).

- Navy says that this alternative would not be cost-effective.
- Navy says that well-head treatment might be eventually needed anyway.

Alternative 2C. ($484M Total Cost) - The measures in Alternative 1, plus a new hydraulic containment system at the leading edge of the plume (capture of all groundwater between eastern and western boundaries of the plume).

- Navy says that this alternative would not be cost-effective.
- Navy says that well-head treatment might be eventually needed anyway

Alternative 3. ($277M Total Cost) - The measures in Alternative 1, plus accelerated installation of wellhead treatment in downgradient supply wells (far in advance of plume migration). - MWD was willing to accept this alternative for at least one of its wellfields. Navy is against this alternative because (according to Table 3. on p. 65 of pdf):

- A large and relatively early capital investment in wellhead treatment is required in 15 downgradient supply wells, regardless of whether those wells are eventually impacted by VOCs or not.

- According to the Navy, legally, there could be fiscal constraints on spending without a demonstrated need. ORC is looking into this to confirm whether or not this is an issue.

- It does not account for the reduced probability of impacts to downgradient supply wells due to resources expended in the current ROD measures (upgradient source containment, hot-spot treatment, capture by supply wells, and advection-dispersion).

* Total Cost = Capital Cost + Operating & Maintenance Cost